

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) ~~Ultrathin-walled~~ An ultrathin-walled multiwell plate for carrying samples for PCR in a heat block for heat block thermocycling of samples comprising:

a plate having an array of small-volume wells of identical height with the similarly shaped sample wells formed in the and shaped for fitting into wells in a top surface of the heat block of the thermocycler, wherein the walls of the wells have an average thickness of 20-40 microns; and

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a rigid frame fixed to the plate configured to provide support for said plate when outside of the heat block.

2. (Canceled)

3. (Currently Amended) ~~Ultrathin-walled~~ The ultrathin-walled multiwell plate according to claim 1, wherein the walls of the wells are conically shaped.

4. (Currently Amended) ~~Ultrathin-walled~~ The ultrathin-walled multiwell plate according to claim 1, wherein the thickness of the walls of the wells decreases from top to bottom.

5. (Currently Amended) ~~Ultrathin-walled~~ The ultrathin-walled multiwell plate according to claim 1, wherein the wells of said multiwell plate are thermoformed into negative mould.

6. (Canceled)

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7. (Currently Amended) ~~Ultrathin-walled~~ The ultrathin-walled multiwell plate according to claim 1, wherein the walls of the wells are deformable.

8. (Canceled)

9. (Currently Amended) ~~Ultrathin-walled~~ The ultrathin-walled multiwell plate according to claim 1, wherein the volume of the well is in the range of 16-85 μ l.

10. (New) The ultrathin-walled multiwell plate according to claim 1, wherein the rigid frame is formed of a polypropylene sheet of thickness of 0.5 mm and heat bonded to the plate.

11. (New) The ultrathin-walled multiwell plate according to claim 1, wherein the rigid frame is a rigid 0.5-1 mm thick plastic frame heat bonded to the plate.

12. (New) The ultrathin-walled multiwell plate according to claim 1, wherein the rigid frame is injection molded and contains an array of holes in a top surface matching the array of wells.

13. (New) A PCR device comprising;
a plate having an array of plate wells having a wall thickness in the range of 20-40 microns;
a rigid frame fixed to the plate and configured to provide support for said plate permitting transport of said plate;
a heat block having heat block wells for accepting said array of plate wells of said plate, said heat block wells of said heat block having apertureless bottoms; and

said plate wells having side walls equal in height to said heat block wells.

14. (New) The PCR device according to claim 13, wherein the walls of the plate wells are conically shaped.

15. (New) The PCR device according to claim 13, wherein the thickness of the walls of the plate wells decreases from top to bottom.

16. (New) The PCR device according to claim 13, wherein the wells of said plate are thermoformed into negative mould.

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17. (New) The PCR device according to claim 13, wherein the walls of the plate wells are deformable.

18. (New) The PCR device according to claim 13, wherein the volume of the plate wells is in the range of 16-85 μ l.